Agenda
NASA ACAST Workshop
August 24-25, 2004

Tuesday Morning – August 24		
07:30 – 08:30	**Registration and Continental Breakfast**	
Plenary Session – Salons D & E Session Chair: Robert Kerczewski, NASA Glenn Research Center		
08:30 – 08:40	Welcome	Sandra Reehorst, NASA Glenn Research Center
08:40 – 08:45	Introduction	Ron Colantonio, NASA Glenn Research Center
08:45 – 09:00	ACAST Workshop Overview	Robert Kerczewski, NASA Glenn Research Center
09:00 – 09:30	Airspace Systems Program Overview	Robert Jacobsen, NASA Ames Research Center
09:30 – 10:00	How ACAST Can Help	Ann Tedford, Federal Aviation Administration
10:00 – 10:15	**Break**	
10:15 – 10:45	ACAST Project Review	Robert Kerczewski, NASA Glenn Research Center
10:45 – 11:00	(1) VHF Optimization Investigating Key Related Issues (2) Short Baseline Interferometry for Precision Landing – Summary of Results	Leonard Schuchman, Satel, LLc
11:00 – 11:15	NASA Surface CNS Network Requirements Summary	Hal Ludwig, Trios Associates Inc.
11:15 – 11:30	Multi-function, Multi-mode Digital Avionics Relevant Standards and Working Groups Survey Multi-Function, Multi-Mode Digital Avionics (MMDA) Certification Methodologies Assessment Multi-Function, Multi-Mode Digital Avionics (MMDA) Survey and Assessment of Military Avionics	Thomas Mulkerin, Mulkerin Associates Inc. Chris Wargo, Computer Networks & Software, Inc. Chris Wargo, Computer Networks & Software, Inc.
11:30 – 11:45	Evolution of Multi-Modal Digital Avionics	Mark Peters, Seagull Technology, Inc.
11:45 – 12:00	Secure Mobile Networking Virtual Mission Operations	Phillip Paulsen, NASA Glenn Research Center
12:00 – 01:00	**Lunch**	

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Tuesday Afternoon – August 24		
Session A: Future Aviation Network Technologies – Salons B & C Session Chairs: Steve Mainger, NASA Glenn Research Center and Chris Wargo, Computer Networks & Software, Inc. Recorder – Mohammed Shamma, Analex Corporation		
01:00 – 02:00	Report on AEEC Aircraft Information Security Working Group	Cary Spitzer, AvioniCon, Inc.
	….Airplanes As a Network…. Information Connectivity in Aviation	Ralph Yost, Federal Aviation Administration
	The Integrated Global Surveillance and Guidance System (IGSAGS)	Robert Crow, AirNav, Inc.
	NAS-Wide CNS Performance Impacts Analysis Using ACES Uncertainty Modeling	George Couluris, Seagull Technology, Inc.
	Future NAS Information System Security (ISS) Requirements	Kevin Harnett, DOT/Volpe Center
	SITA CNS and IP-Based Solutions	Kathleen Kearns, SITA
	Aviation Transition to IP-based Protocols	Chris Wargo, Computer Networks & Software, Inc.
	Architectures and Networks Overview	Steve Mainger, NASA Glenn Research Center
02:00 – 02:45	• Is IP (IPv6) the right future solution for aviation? • What security requirements must be satisfied for future network-centric CNS?	All
02:45 – 03:00	**Break**	
03:00 – 05:00	Break Out Session (continued)	
05:00	Workshop Adjourns	
07:05 – 10:00	Cleveland Indians vs. New York Yankees	

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Session B: Aviation Spectrum Needs and Challenges – Salon A Session Chairs: Larry Foore, NASA Glenn Research Center and Oscar Alvarez, Federal Aviation Administration Recorder – Rodney Spence, NASA Glenn Research Center		
01:00 – 01:30	ACAST 5 GHz Wireless Channel Characterization for Airport Surface/Terminal Areas	David Matolak, Ohio University
	Spectrum Research Activities Overview	Larry Foore, NASA Glenn Research Center
01:30 – 02:45	• What is the supporting data required to enable recharacterization of the MLS band (5091-5150 MHz)? • What aviation bands should be at highest priority for NASA R&D in the spectrum area?	All
02:45 – 03:00	**Break**	
03:00 – 05:00	Break Out Session (continued)	
05:00	Workshop Adjourns	
07:05 – 10:00	Cleveland Indians vs. New York Yankees	

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Tuesday Afternoon – August 24		
Session C: Multi-Function Multi-Mode Digital Avionics – Superior & Erie Meeting Rooms Session Chairs: Monty Andro, NASA Glenn Research Center and Michael Kocin, ViaSat, Inc. Recorder – Ron Sicker, NASA Glenn Research Center		
01:00 – 02:00	Safety First and Foremost	Michael Harrison, Aviation Management Associates, Inc.
	Report on RTCA SC-200 Integrated Modular Avionics	Cary Spitzer, AvioniCon, Inc.
	Multi-mode, Multi-function Digital Avionics (MMDA) Overview	Monty Andro, NASA Glenn Research Center
02:00 – 02:45	• JTRS Architecture – Is this the right solution for civil aviation applications? • Should the goal be the development of an open standard architecture? • Consider NASA's R&D plan, what approaches can be employed to resolve certification issues?	All
02:45 – 03:00	**Break**	
03:00 – 05:00	Break Out Session (continued)	
05:00	Workshop Adjourns	
07:05 – 10:00	Cleveland Indians vs. New York Yankees	

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Wednesday – August 25		
07:00 – 08:00	**Continental Breakfast**	
Morning Session – Salons D & E		
08:00 – 08:15	TNAS Overview	Michael Zernic, NASA Glenn Research Center
Session D: Integrated CNS Network for the Airport Surface – Salons B & C Session Chairs: Rafael Apaza, Federal Aviation Administration and David Matolak, Ohio University Recorder – Chelsea Smith, NASA Glenn Research Center		
08:15 – 09:15	The Integrated Global Surveillance And Guidance System	Robert Crow, AirNav, Inc.
	1G-3G Wireless Communications Potentials in Airport Surface and in Air	Mohammed Shamma, Analex Corporation
	Surface CNS Performance Impacts Analysis Using ACES Uncertainty Modeling	George Couluris, Seagull Technology, Inc.
	Integrated CNS Network for the Airport Surface Overview	Rafael Apaza, Federal Aviation Administration

09:15 – 10:00	• What communication services are candidates for transport on a surface ICNS network?
	  ➢ Critical, non-critical, voice, data, video…
	  ➢ Description, justification
	• What wireless network technologies should be considered and why?
	• How could a wireless airport surface ICNS network be implemented to meet all airport communication requirements – who owns, manages and operates?
		All

10:00 – 10:15	**Break**	
10:15 – 12:00	Break Out Session (continued)	
12:00	ACAST Workshop Adjourns	

12:00 – 12:30	FAA/Eurocontrol Future Communications Study – Salons D & E

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Wednesday – August 25		
07:00 – 08:00	**Continental Breakfast**	
Morning Session – Salons D & E		
08:00 – 08:15	TNAS Overview	Michael Zernic, NASA Glenn Research Center
Session E: Oceanic Communications and Surveillance – Salon A Session Chairs: Isi Greenfeld, NASA Glenn Research Center and Kevin Grimm, Federal Aviation Administration Recorder – Bryan Welch, NASA Glenn Research Center		
08:15 – 09:15	FAA's Oceanic Priorities	Kevin Grimm, Federal Aviation Administration (No presentation slides given only spoke)
	World 2025 Demand Projections	Mike Harrison, Aviation Management Associates
	SITA Oceanic CNS Solutions	Kathleen Kearns, SITA
	Oceanic/Remote Communications & Surveillance Overview	Isi Greenfeld, NASA Glenn Research Center
09:15 – 10:00	• What cost elements are presenting barriers to full equipage with satcom avionics capable of enabling 30/30 separation in oceanic domains? • What are the regional differences in oceanic ATC regimes - e.g., North Atlantic, North Pacific, etc. - that must be considered in developing both global and transparent oceanic solutions? • What is the value of real-time, oceanic weather data and should it be factored into the oceanic communications solution?	All
10:00 – 10:15	**Break**	
10:15 – 12:00	Break Out Session (continued)	
12:00	ACAST Workshop Adjourns	

12:00 – 12:30	FAA/Eurocontrol Future Communications Study – Salons D & E

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Morning Session – Salons D & E		
08:00 – 08:15	TNAS Overview	Michael Zernic, NASA Glenn Research Center
Session F: Advancing VHF Systems Efficiencies - Superior & Erie Meeting Rooms Session Chairs: Monty Andro, NASA Glenn Research Center and Steve Koczo, Rockwell Collins Recorder – Dave Buchanan, NASA Glenn Research Center		
08:15 – 09:15	Advancing VHF Systems Efficiencies Overview	Monty Andro, NASA Glenn Research Center
09:15 – 10:00	• What are key performance parameters for VHF communication systems that require further characterization? • What are strategies to implementing a CDM-overlay type system, and what are possible barriers?	All
10:00 – 10:15	**Break**	
10:15 – 12:00	Break Out Session (continued)	
12:00	ACAST Workshop Adjourns	

12:00 – 12:30	FAA/Eurocontrol Future Communications Study – Salons D & E